

This Listing of Claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously presented) A purified antibody, wherein the antibody recognizes and binds specifically to a nitrosylated protein such that said purified antibody neutralizes the deleterious effects of excessive or inadequate production of nitric oxide or its conjugates in a subject.
2. (Previously presented) The antibody in Claim 1, characterized by the fact that said protein is a transporter of NO.
3. (Previously presented) The antibody in Claims 1 or 2, recognizing specifically a nitrosylated albumin.
4. (Currently amended) The antibody in any one of Claims 1 to 3 or 21, characterized by the fact that it is a polyclonal antibody.
5. (Currently amended) The antibody in any one of Claims 1 to 3 or 21, characterized by the fact that it is a monoclonal antibody.
6. (Withdrawn) All of the antibodies in Claim 4 or 5.
7. (Withdrawn) An immunogen for preparation of the antibodies in any one of the preceding claims, characterized by the fact that it is composed of a nitrosylated carrier protein whose sequence possesses a nitrosylation site, or by a nitrosylated amino acid coupled to a carrier protein by a coupling agent selected among carbodiimide, glutaraldehyde or succinic anhydride.

8. (Withdrawn) The immunogen in Claim 7, characterized by the fact that the nitrosylation site or the amino acid is chosen among tyrosine, cysteine, potentially acetylated, or tryptophane.

9. (Withdrawn) The immunogen in one of Claims 7 or 8, characterized by the fact that the carrier protein is an albumin.

10. (Withdrawn) A process for preparation of an immunogen according to any one of Claims 8 to 9, characterized by the fact that an amino acid is coupled to a carrier protein, then the conjugate obtained is nitrosylated with an NO donor compound.

11. (Previously presented) A pharmaceutical composition comprising:

- (a) a purified antibody that recognizes and binds specifically to a nitrosylated protein; and
- (b) a pharmaceutically acceptable excipient;

wherein said purified antibody neutralizes the deleterious effects of excessive or inadequate production of nitric oxide or its conjugates in a subject.

12. (Withdrawn) The use of an antibody according to any one of Claims 1 to 5 or a group of antibodies according to Claim 6 or a compound according to Claim 11, for the preparation of a drug designed to treat or prevent a pathology in which NO, its derivatives or conjugates are involved.

13. (Withdrawn) A process for *in vitro* detection of nitrosylated proteins in a biological specimen comprised of at least the following steps :

- putting the sample in contact with at least one antibody according to any one of Claims 1 to 5 or a group of antibodies according to Claim 6, which may be marked, under conditions that permit the formation of immunological complexes;

- detection of an antigen-antibody immunological complex by physical or chemical methods.

14. (Previously presented) A kit for *in vitro* detection of nitrosylated proteins in biological specimen, comprising :

- (a) a purified antibody that recognizes and binds specifically to a nitrosylated protein; and
- (b) reagents to produce a medium favorable for an immunological reaction between said purified antibody and any nitrosylated proteins that may be present in a biological specimen.

15. (Withdrawn) A method of treating the deleterious effects of excessive or inadequate production of nitric oxide or its conjugates in a subject by administering to said subject a purified antibody wherein the antibody recognizes and binds specifically to a nitrosylated protein.

16. (Withdrawn) The method of claim 15, wherein the nitrosylated protein is a transporter of NO.

17. (Withdrawn) The method of claim 15, wherein the antibody binds specifically to nitrosylated albumin.

18. (Withdrawn) The method of claim 15, wherein the antibody is a polyclonal antibody.

19. (Withdrawn) The method of claim 15, wherein the antibody is a monoclonal antibody.

20. (Withdrawn) The method of claim 15, wherein said excessive or inadequate production of nitric oxide may arise from infections, shock, degenerative diseases, diabetes, autoimmune diseases and cancers afflicting said subject.

21. (New) A purified antibody that binds to a nitrosylated albumin or BSA molecule wherein the nitrosylated albumin or BSA molecule comprises cysteine, tyrosine or tryptophan.

22. (New) A purified antibody, wherein the antibody recognizes and binds specifically to a nitrosylated epitope such that the purified antibody masks the nitrosylated epitope.

23. (New) The antibody of claim 21 or 22 wherein the nitrosylated albumin or BSA molecule further comprises a coupling agent.

24. (New) The antibody according to claim 23 wherein the coupling agent is carbodiimide, glutaraldehyde, or succinic anhydride.

25. (New) The antibody according to claim 21 or 22 wherein the nitrosylated albumin or BSA molecule is selected from the group consisting of:

- a) NO-Tyr-BSA;
- b) NO-Cys (acetylated)-BSA;
- c) NO-Cys; (non-acetylated)-BSA;
- d) NO-Tyr-G-BSA;
- e) NO-Cys-G-BSA;
- f) NO-Tyr-SA-BSA;
- g) NO-Cys-SA-BSA;
- h) NO-Tryp-BSA;
- i) NO-Tryp-G-BSA; and
- j) NO-BSA.

26. (New) A pharmaceutical composition comprising:

- (a) the purified antibody according to any one of claims 21-25; and

(b) a pharmaceutically acceptable excipient.

27. (New) A kit for *in vitro* detection of nitrosylated proteins in biological specimen, the kit comprising :

- (a) the purified antibody according to any one of claims 21-25; and
- (b) reagents to produce a medium favorable for an immunological reaction between said purified antibody and any nitrosylated proteins that may be present in a biological specimen.